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Kuwa Patent Attorneys
S. K. K.

(71) Applicant: TOYO COMMUN EQUIP CO LTD

(72) Inventor:
YANAGISAWA SHIGEKI
MATSUO KAZUTO
WADA YOSHIO
MORIZUMI TETSUYA

(54) METHOD FOR PSK MODULATION AND
DEMODULATION AND DEVICE THEREFOR

demodulate original information data $D(t)$, thus
improving the error rate.

(57) Abstract:

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PURPOSE: To provide the method for PSK modulation/demodulation and device therefor which reduce the error rate for demodulation of a PSK modulation signal in comparison with a delay detecting means and a synchronous demodulating means.

CONSTITUTION: A modulator T sends the signal obtained by noninverting or inverting the carrier wave, whose instantaneous value starts with a prescribed value, in accordance with each bit value of information data $D(t)$ as a PSK modulation signal $P(t)$ from a terminal (e) of a switch circuit 6. Meanwhile, a demodulator R uses a wavelet converter 10 and obtains a value $W(a, b)$, which is obtained by subjecting the PSK modulation signal $P(t)$ to wavelet conversion by a function $h_{a,b}(t)$ for emphasis of only the phase change component of the PSK modulation signal $P(t)$, to eliminate the noise included in the signal component other than the phase change component of the PSK modulation signal $P(t)$. Simultaneously, a bit value corresponding to the polarity of the converted value $W(a, b)$ is outputted from a polarity discriminator 13 to

